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A NEW SPECIES OF THE GENUS *JOLLAS* SIMON, 1901 (ARANEAE: SALTICIDAE) FROM ARGENTINA

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Summary. *Jollas candidae* Rubio, Almada et Baigorria, **sp. n.** is described and
illustrated based on males and females from northeast Argentina. New species
belongs to the *leucoproctus* species group of the genus *Jollas* Simon 1901.

Key words: jumping spiders, Salticinae, taxonomy, new species, South America.

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Резюме. С северо-востока Аргентины на основе самцов и самок описан и
проиллюстрирован новый для науки вид *Jollas candidae* Rubio, Almada et
Baigorria, **sp. n.** Новый вид относится к группе видов *leucoproctus* рода *Jollas*
Simon 1901.

INTRODUCTION

The genus *Jollas* Simon 1901 consists of 16 species of Neotropical jumping spiders. There are two species groups within this genus, clearly distinguishable by their external appearance (Galiano, 1989, 1991; Maddison *et al.*, 2020). One of these groups was designated as the *leucoproctus* group by Galiano (1989) and includes spider species that were previously placed within the genus *Sitticus* Simon, 1901, with robust bodies and covered with opaque scales, such as *Jollas cellulanus* (Galiano, 1989), *J. flabellatus* (Galiano, 1989), *J. leucoproctus* (Mello-Leitão, 1944), and *J. oklanderae* Baigorria et Rubio 2024 (Baigorria & Rubio, 2024). On the other hand, a second group is composed of glabrous and shiny spiders, stylized and with a more "fragile" appearance (designated as the *geniculatus* group by Galiano, 1991), which includes eight other species (Baigorria & Rubio, 2024; Metzner, 2025).

Some other characteristics that differentiate the groups are, for example, the presence of a "pars pendula" in the embolus of the palps of the males of the *leucoproctus* group, or the pectinate nails in this group versus the smooth nails in the *geniculatus* group. One species, *J. cupreus* W. Maddison, 2020, has the male with *geniculatus* group genitalia, but the female seems to be more related to *leucoproctus* group (see images in Metzner, 2025).

Seven species of *Jollas* are known from Argentina (CAA, 2025; WSC, 2025). In this work, we describe a new species of the genus based on both their reproductive structures and their external morphological characters.

MATERIAL AND METHODS

The material examined was collected by the authors and some of these represent type specimens. Specimens were examined from the spiders' collection of the Instituto de Biología Subtropical (IBSI-Ar) under the curatorial care of the Salticid Research Group of Argentina (GISA), Misiones.

The description format and measurements follow those of Galiano (1963), with morphological terms and the interpretation of structures as in Edwards (2015). Female genitalia were dissected as described by Levi (1965), internal structures were examined after digestion in a hot ~15% NaOH solution and cleared in clove oil solution. The pieces were placed in a double boiler and heated in a Fuyí © heater for anti-mosquito tablets (Ramírez, 2014). Temporary slide preparations were observed and photographed using a Leica DM500 compound microscope and a Leica M60 stereomicroscope. Structures were sketched from direct observation and digital image models on the microscope / stereomicroscope using a computer system for drawing and image processing (Wacom digitizer tablet with Corel Draw software). Measurements were taken directly from a micrometre ocular lens and are given in millimetres. Live photographs were taken using a Nikon D3400 digital camera with a Micro-Nikkor 85 mm lenses. Plates were edited and composed in Corel Draw.

Acronyms used in the text are as follows: ALE – anterior lateral eye, AME – anterior median eye, CD – copulatory duct, CO – copulatory opening, PLE – posterior lateral eye, PME – posterior median eye, RTA – retrolateral tibial apophysis.

DESCRIPTION OF NEW SPECIES

Family Salticidae Blackwall, 1841

Subfamily Salticinae Blackwall, 1841

Tribe Sitticini Simon, 1901

Genus *Jollas* Simon, 1901

COMPOSITION. Sixteen described species, with *Jollas geniculatus* being the type species of the genus (WSC, 2025), and *J. candidae* **sp. n.** described here from Argentina.

***Jollas candidae* Rubio, Almada et Baigorria, sp. n.**

<https://zoobank.org/NomenclaturalActs/732C0021-C1F4-4495-B26E-F87F9A91C108>

Figs 1–14

TYPE MATERIAL. Holotype: ♂ (IBSI-Ar 00924), **Argentina**: Misiones, Leandro N. Alem, Cerro Azul, INTA station, airfield runway, 27.66652° S, 55.43603° W, 22 August 2017, GD Rubio & M Skromeda leg. (photo code: dsc8013-8024). Paratypes: 2♂, 2♀ (IBSI-Ar 01994), Santa Fe, General Obligado, Reconquista, INTA station, lote 1, 29.2583° S, 59.7425° W, pitfall trap, January 2009, MS Almada leg.

OTHER MATERIAL EXAMINED. **Argentina**: Corrientes, Mercedes, Iberá, Capita Mini, 28.93972° S, 58.37294° W, 6 March 2014, 1♂ (IBSI-Ar 00684), G Avalos leg.; Santa Fe, General Obligado, Reconquista, INTA station (F2, Tr3), 29.2583° S, 59.7425° W, G-Vac, April 2009, 1♀ (IBSI-Ar 01972), MS Almada leg.; same place, G-Vac, October 2009, 1♀ (IBSI-Ar 01983; msp134), MS Almada leg.; same data, 1♂ (IBSI-Ar 01991).

DESCRIPTION. *Male* (holotype). Total length 2.70. Carapace length 1.45, width 1.10, height 0.65; abdomen length 1.35, width 0.95. Clypeus 0.10. Anterior eyes row recurved (dorsal view). Upper edge of the AME below that of the ALE (frontal view). Carapace granulated, mainly in the cephalic region, covered with numerous pale yellow hairs; eye quadrangle length 0.57, width 0.94 (at PLE). Ocular diameters: AME 0.26, ALE 0.12, PME 0.05, PLE 0.11. Fovea absent, a slight mark in its place. Thoracic and lateral slope of the carapace covered with translucent white hairs. Chelicerae vertical, almost parallel, paturon without mastidion; paturon length 0.45, four promarginal teeth and no retromarginal teeth. Labium length ~0.16, width ~0.45. External angle of the endites rounded, with long hairs. Sternum length 0.50, width 0.45. Abdomen integument covered with small translucent hairs, and some hairs with iridescence. Abdomen without a scutum. First pair of legs longer than the rest,

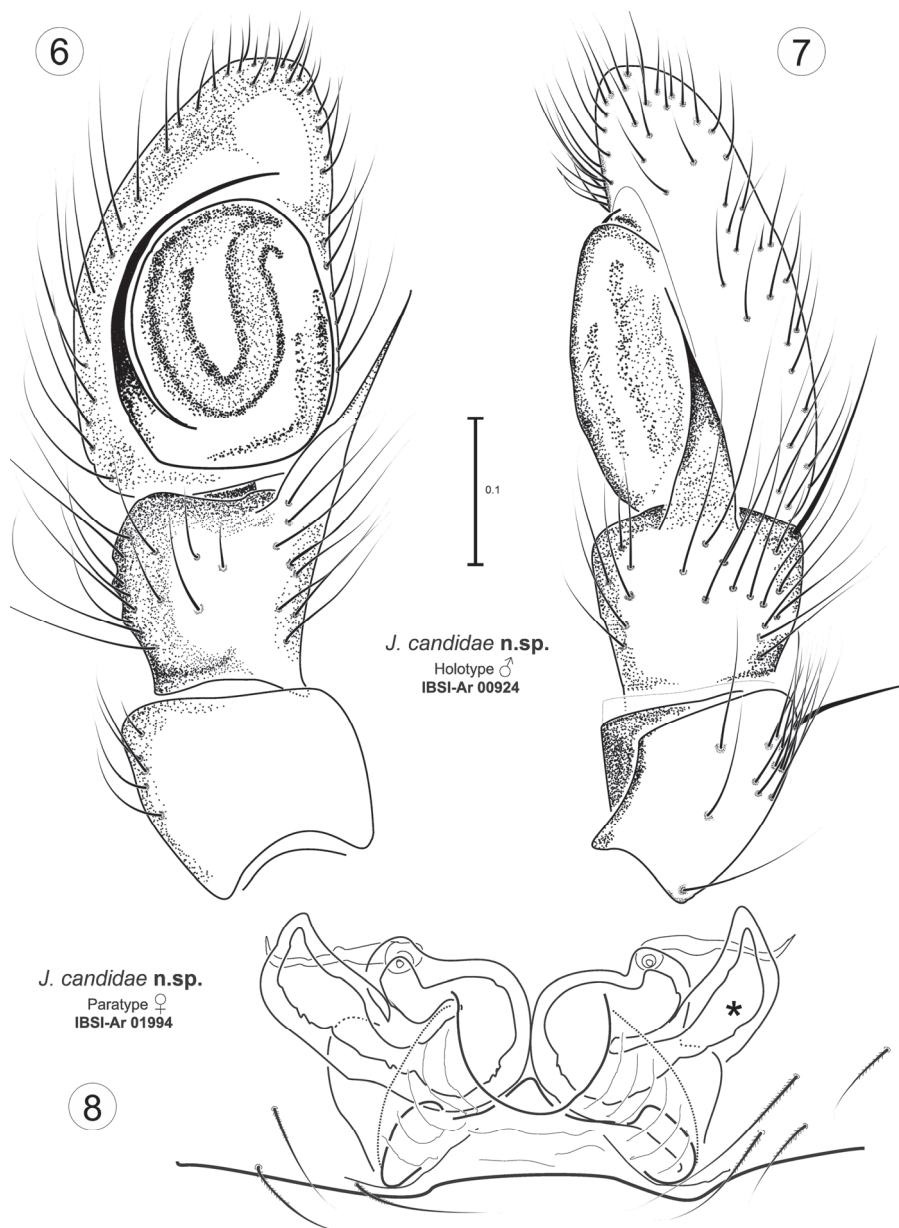
with two pairs of small ventral spines on tibia, and two ventral pairs on metatarsus. Palp as in figs 6 and 7. Palpal femur length 0.42; tibia length 0.15, width 0.14; cymbium length 0.32, hirsute. Bulb ovoid, length 0.22, width 0.17. RTA conspicuous, length 0.17, with wide base and long and thin tip. Embolus sclerotized, arising from the prolateral base of the bulb and accompanying it half a turn prolaterally, tip of the embolus at the distal part of the bulb; not associated with projections.



Figs 1–5. Live specimen of *Jollas candidae* **sp. n.**, holotype male from Cerro Azul, Misiones (IBSI-Ar 00924). Scale bar 1 mm.

Colouration (Figs 1–5, 9–11). Carapace brown to mahogany, darker (black) on ocular quadrangle, covered with numerous whitish and pale yellow hairs. Abdomen brown, grayish, and yellowish; anterior edge of abdomen with tufts of thick black and white hairs. Ventral side of abdomen pale yellow. Legs ringed in dark and light brown. Chelicerae and palps brown, cymbium darker; labium and endites dark brown with the anterior edges paler; sternum dark brown. In natural life, the specimen looks grayish brown, mottled, with scattered whitish hairs on the carapace and anterior edge of the abdomen. Black on front of the chelicerae and inner edge of femur I. Legs ringed.

Female (paratype). Female and male are similar in habitus and proportions; chelicerae and endites are also similar. Total length 3.30. Carapace length 1.50, width 1.22, height 0.75; abdomen length 2.05, width 1.62. Clypeus 0.10. Anterior eyes row recurved (dorsal view). Upper edge of the AME slightly below that of the ALE (frontal view). Eye quadrangle length 0.67, width 1.00 (at PLE). Ocular diameters: AME 0.27, ALE 0.15, PME 0.05, PLE 0.12. Fovea absent. Carapace completely covered with translucent white hairs; cephalic region with some long, erect black hairs. Chelicerae as in male; paturon length 0.40, four promarginal teeth and no retromarginal



Figs 6–8. Genital structures of *Jollas candidae* sp. n.: 6 – palp (IBSI-Ar 00924) in ventral view; 7 – same, retrolateral view; 8 – cleared epigyne (IBSI-Ar 01994), ventral view. Asterisk = glandular sack-shaped stretch of CD. Scale bar 0.1 mm.

teeth. Labium length ~ 0.45 , width ~ 0.20 . External angle of the endites rounded, with long hairs. Sternum length 0.55, width 0.47. Abdomen integument covered with small translucent hairs, and some hairs with iridescence, and other black hairs. Abdomen without a scutum. Fourth pair of legs longer than the rest, leg I with two pairs of ventral spines on tibia, and two ventral pairs on metatarsus. Epigyne (Fig. 8): weakly sclerotized plate; COs hard-to-see that open in a “U” shape central atrium; each duct opens into a sac-like shape. The spermathecae visible by transparency, located centrally and posteriorly. CDs with a sack-shaped stretch, directed anteriorly and laterally (glandular according to Galiano, 1991; see asterisk in fig. 8). Fertilization ducts visible on the spermathecae, located anteriorly and dorsally.



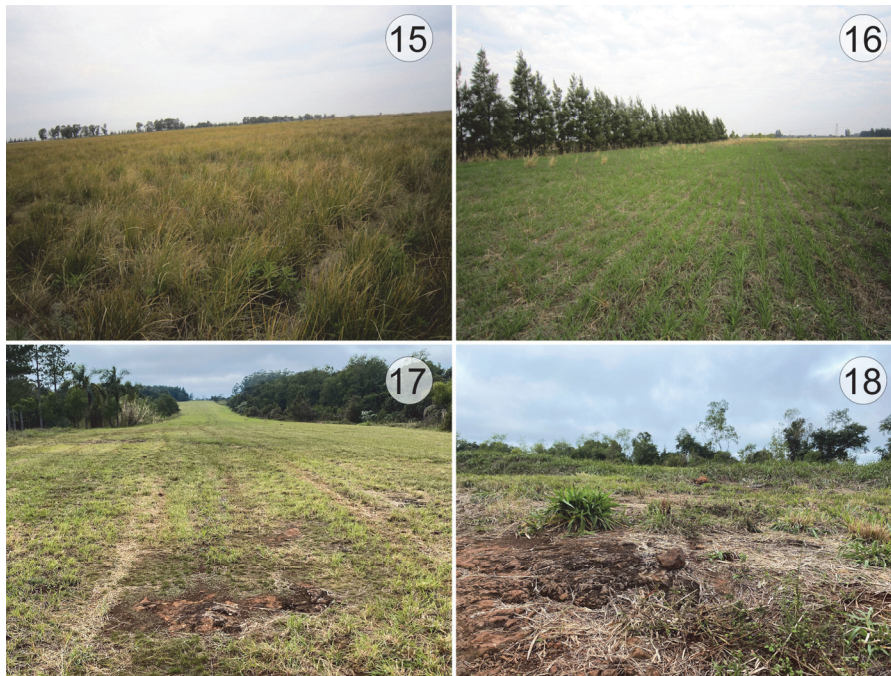
Figs 9–14. Male (9–11) and female (12–14) of *Jollas candidae* **sp. n.**: 9 – habitus (IBSI-Ar 00924), frontal view; 10 – same, dorsal view; 11 – same, lateral view; 12 – habitus (IBSI-Ar 01994), frontal view; 13 – same, dorsal view; 14 – same, lateral view.

Colouration (Figs 12–14). Carapace as in male. Abdomen light brown, without dorsal scutum, some scattered small iridescent scales; anterior edge of abdomen with tufts of thick black and white hairs. All ventral side pale brown with some grayish tones. Legs as in male. Palps light brown, chelicerae darker; labium and endites brown with the anterior edges paler; sternum brown. In natural life, the dorsal habitus looks like that of the male.

DIAGNOSIS. *Jollas candidae* **sp. n.** resembles *Jollas* of the *leucoproctus* group such as *J. cellulanus*, *J. flabellatus*, *J. leucoproctus* and *J. oklanderae* in having the mottled habitus, covered with dark greyish hair, the carapace with granulated cuticle, and the slightly more robust body than those of the *geniculatus* group (Figs 1–5, 9–14). Male of *J. candidae* **sp. n.** can be easily distinguished from the first three species

by having a non-discoidal bulb, and the lack of a pars pendula on embolus, generally ribbon-tipped (Figs 6, 7); *Jollas candidae* **sp. n.** is distinguished from *J. oklanderae* by having a non-discoidal bulb, a straight tip of the embolus, and a narrower tibia, female is distinguished by having a central atrium on the epigyne that opens in a "U" shape, with two something like sack-ducts heading laterally and posteriorly towards the internal COs, different spermathecae (Fig. 8), and a non-beetle habitus. The female has the characteristic habitus of the *leucoproctus* group, but the epigyne is of the *geniculatus* group type, only similar to that of *J. paranacito* in having the "U" shape central atrium and the ducts with a sack-like shape at its opening. The only difference is that the atrium of *J. candidae* **sp. n.** does not extend anteriorly as in *J. paranacito*, and that the habitus is of the *leucoproctus* type (very different from that of the *geniculatus* group).

BIOLOGY. Specimens were observed throughout the seasons, obtained using both G-vac and pitfall traps. They were found in open and disturbed environments, on the soil of short grasses, wheat and soybean crops, and cattle pastures (Figs 15–18). Under natural conditions, they probably prefer low, open grasslands with rocky soil.



Figs 15–18. Habitats where specimens of *Jollas candidae* **sp. n.** were found in Argentina: 15, 16 – Reconquista, Santa Fe; 17, 18 – Cerro Azul, Misiones.

DISTRIBUTION. Known from southern Misiones, Corrientes and northern Santa Fe.

ETYMOLOGY. The species is named in honour of Viviana Cándida Martínez, MSA's beloved mother.

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